



Fetal heart rate monitoring in labour

Your Choices



What is fetal monitoring in labour?



During labour, the midwives and doctors will monitor you and your baby and pay particular attention to your baby's heart rate pattern. Listening to your baby's heartbeat can help midwives and doctors assess how well your baby is coping with labour. This is called **fetal heart monitoring**.

This leaflet outlines **Fetal Heart Rate (FHR) monitoring in labour**, explores the benefits and risks, ways in which it is done and choices surrounding monitoring.

What are the risks and benefits of monitoring FHR?

The benefits are:

- During labour, contractions reduce the blood flow to the placenta. This is normal and most babies cope without any problems.
- The national recommendation is that a baby's heart rate is monitored during labour because this provides information on how well he or she is coping, allowing us to act if there are any concerns.

The risks are:

- The risk of monitoring the baby's heartbeat is that there can be times it is hard to interpret and doesn't always reflect accurately how well the baby is coping. This can sometimes lead to extra intervention.

What are the risks and benefits of not monitoring FHR?

The benefits are:

- Benefits would include the ability to be uninterrupted in labour.

The risks are:

- If your baby is not coping well with labour, we would not know about it or be able to act upon it, which could affect your baby's long-term health or be potentially life-threatening.

What methods are available to monitor the baby's heart rate

There are two ways FHR monitoring can be performed:



It can be monitored either at regular intervals (intermittent) or continuously (electronic fetal monitoring).

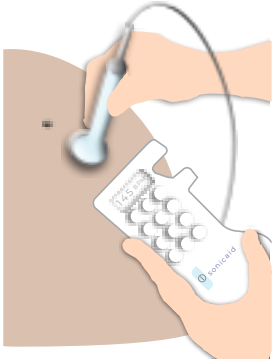
The midwives and doctors will advise you depending on your individual case and risk factors, which one would be recommended when you attend in labour.



Making your decision:

- Choosing to have your baby monitored in labour is your choice and we are here to help guide you through the benefits, risks and options for you to make your decision on what you feel comfortable with.
- Your choice in how we monitor your baby's heartbeat can be included in your personalised care plan. This can be shared with those caring for you and your baby to ensure they are aware of your decision.
- You may choose one method or another or you may decide that you prefer your baby to be listened to at differing intervals to the national recommendations.
- Your midwife is always there to discuss this in more detail and help you feel fully informed.
- Your decision can change any time you wish.

How is your baby monitored intermittently?



- The midwives can use a Pinard stethoscope ('trumpet shaped' instrument in which only they can hear the heart rate).
- Alternatively a Doppler (small electronic hand-held device, which allows you to hear your baby's heartbeat too).
- National recommendations advise your baby's heart rate is listened to every 15 minutes in the first stage of labour and every 5 minutes in the second stage.

What are the advantages and disadvantages of intermittent FHR monitoring?

- If you have a low-risk pregnancy, this is the usual method of monitoring as it achieves a balance between detecting babies that are not coping well whilst reducing the risk of unnecessary interventions.
- The Midwife will listen to your baby's heart rate at regular intervals during labour, whilst measuring your pulse to ensure she can tell them apart.


The benefits are:

- This allows you to move around freely in between and you are only limited for a short time whilst the heart rate is being checked. This balances detecting wellbeing and any changes but without listening continuously.
- If any concerns arise whilst the midwife listens to your baby's heart rate, then a Cardiograph (CTG) may be recommended.

The risks are:

- It is important to recognise that no kind of monitoring is perfect. Listening intermittently gives us a good picture of the baby's condition, but might not pick up sudden changes immediately.

How is continuous FHR monitoring performed?

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- The midwives can use a machine called a Cardiotocograph or CTG. This detects and prints out the baby's heartbeat continuously.
 - If you have risk factors in pregnancy, labour or some health problems that might affect how the baby copes with labour, you may be recommended a CTG for FHR monitoring in labour.
 - This is because in some instances, there may be a higher chance of your baby not tolerating labour or risk of complication that can be detected by changes in the baby's heart rate pattern.

Examples of when you would be recommended to have CTG tracing in labour include:

- Use of oxytocin hormone drip to either start or speed up labour
- Epidural for pain relief
- Previous caesarean
- Raised blood pressure
- Ruptured membranes (waters gone) over 24 hours
- Diabetes
- Bleeding in pregnancy or during labour
- Premature labour
- Reduced amount of fluid around the baby, seen on scan
- When baby has not been growing very well
- Twins or triplets
- Breech

Setting up a CTG monitor

For the CTG machine to record your baby's heartrate and contractions, you will have two straps attached to your abdomen.

One strap holds the 'toco' (sensor to monitor contractions) in place. The second strap usually holds the 'transducer' (fetal heart rate detector). This will provide a continous printout of the baby's heart rate pattern that the midwives and doctors can assess and explain to you.



You may choose to have your baby monitored with a CTG or if you are not comfortable with this you may choose intermittent. Please discuss this with your midwife to allow a personalised discussion based on your own labour and choices.

What are the advantages and disadvantages of continuous CTG?

The benefits are:

- Having a CTG allows us to continuously watch your baby's heartbeat and how they respond to labour.
- If you have risk factors that may affect how well your baby copes with labour, a CTG can allow us to monitor baby more closely and detect changes early and discuss plans and decisions that may support a safe labour and birth.

The risks are:

- Being attached to a CTG monitor continuously may limit your mobility, although it should still be possible to stand, sit down, use the birthing ball and walk around, a small area depending on the length of the toco leads. (Some units may have access to wireless monitors to allow more mobility and possibility of entering the pool whilst undergoing continuous monitoring, this may depend upon other risk factors for using the pool).
- Some CTGs can be hard to interpret, and therefore having continuous monitoring can sometimes lead to a recommendation for the baby to be delivered earlier or quicker. This can be by instrumental delivery (forceps or vacuum cup) or caesarean section.

Difficulties in getting a good CTG Tracing

What is a FSE - Fetal Scalp Electrode?

Sometimes in labour, the baby's heart rate is difficult to record when using the abdominal transducer. This can be due to the baby's position, a poor quality signal, or the position a woman wishes to adopt during labour.

If this happens, your midwife or doctor may suggest attaching a small 'clip' to the baby's head during a vaginal examination.

This is not a routine procedure but is sometimes recommended to be able to clearly see the baby's heartbeat to check their wellbeing.



The benefits are:

- It can allow freedom of movement and positions in labour for you whilst having continuous monitoring.
- It helps achieve a clearer trace of the baby's heart rate making it easier for us to see and detect any changes.

The risks are:

- It involves a wire that connects from the clip on the baby's head to your leg and then the CTG machine.
- It may not connect first time we may need to attempt to replace it more than once.
- It is only possible if your membranes are ruptured.

Your Notes and Questions:



Where can I get more information?

**Tommy's
Pregnancy Hub:**
Monitoring your
baby in labour



 SCAN ME

NHS Choices:
Monitoring your
baby in labour and
stages of labour



 SCAN ME

Nice:
Monitoring your
baby in labour and
stages of labour



 SCAN ME



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MNVPs:

This leaflet has been co-produced with MNVPs across the LMNS. Details of the MNVPs and how to contact them can be found here

